

Reply to Office Action of February 10, 2003

Regarding claim 1, claim 1 recites a narrow bandwidth, super-regenerative receiver comprising a signal detector having a regenerative oscillator for detecting a signal transmitted at a particular transmit frequency. The super-regenerative receiver further comprises a quench circuit connected to the regenerative oscillator for interrupting the oscillation of the oscillator at a predetermined frequency, and a frequency sweeping circuit. The frequency sweeping circuit is connected to the regenerative oscillator and the quench circuit. The quench circuit is arranged to cycle the regenerative oscillator and the frequency sweeping circuit on and off together, and the frequency sweeping circuit controls operation of the regenerative oscillator to a desired narrow bandwidth around the transmit frequency. In this way, claim 1 recites a super-regenerative receiver with a sweeping circuit that is connected to the quench circuit and controls the regenerative oscillator to a narrow bandwidth.

Niki fails to anticipate the invention recited by claim 1. Niki is not a narrow bandwidth, super-regenerative receiver, and more specifically, Niki fails to describe a signal detector having a regenerative oscillator as recited by claim 1. The Examiner directs Applicant's attention to local oscillator 105. Local oscillator 105 is not a regenerative oscillator as recited by claim 1 but is only a local oscillator controlled by sweep generator 106. Further, Niki does not describe a quench circuit connected to a regenerative oscillator as recited by claim 1, Niki only describes gates 136 and 137 and gate signal generator 138 which are not for interrupting or quenching the oscillation of a regenerative oscillator at a predetermined frequency. Still further, Niki fails to describe a frequency sweeping circuit connected to a regenerative oscillator with the frequency sweeping circuit controlling operation of the regenerative oscillator to a desired narrow bandwidth around the transmit frequency. The Examiner directs Applicant's attention to sweep generator 106 connected to local oscillator 105, however, local oscillator 105 is not a regenerative oscillator and is not controlled so as to oscillate in a narrow bandwidth around the transmit frequency.

In summary, Niki describes a signal detector wherein the envelope of an intermediate frequency signal corresponding to the desired frequency component is set to be above a desired level in a single sweep of a local oscillator by comparing the envelope with a

Reply to Office Action of February 10, 2003

predetermined value for controlling the attenuation of the input signal. After the attenuation is set, only the desired frequency component has an envelope larger than the predetermined value so that the desired frequency component is easily identified in the next sweep. In contrast, claim 1 recites a narrow bandwidth, super-regenerative receiver wherein a frequency sweeping circuit connected to a regenerative oscillator and a quench circuit controls operation of a regenerative oscillator to a desired narrow bandwidth around the transmit frequency. Niki fails to describe several of the claimed elements and relationship among these elements. For the reasons given above, the invention is believed to be patentable.

Claims 2-6 are dependent claims and they are also believed to be patentable for their dependency upon claim 1.

Respectfully submitted,

QINGFENG TANG

By


Jeremy J. Curcuri

Reg. No. 42,454

Attorney for Applicant

Date: April 24, 2003**BROOKS & KUSHMAN P.C.**

1000 Town Center, 22nd Floor

Southfield, MI 48075

Phone: 248-358-4400

Fax: 248-358-3351